

# Heartland Intermodal Partnership

Mississippi Intermodal Council

Robinsonville, MS

August 6, 2003

# How Did the Effort Evolve?

- ❖ Role of Freight in ISTEA and TEA-21
- ❖ Creation of Gulf/River Intermodal Partnership – a nine-state effort to improve landside/waterside infrastructure
- ❖ SAFETEA's Increased Role for Freight

# What is the Heartland Region?

- ❖ The nation's manufacturing center and breadbasket includes as many as 24 states.
- ❖ Immediate next-door neighbors, Canada and Mexico, are linked by both land and water.
- ❖ The region has most of the nation's inland waterways, half of its largest deep-water ports, and all of the major shallow-water ports.

# What is the Heartland Region?

## Heartland Intermodal Partnership (HIP)



# What Freight Capacity Crisis?

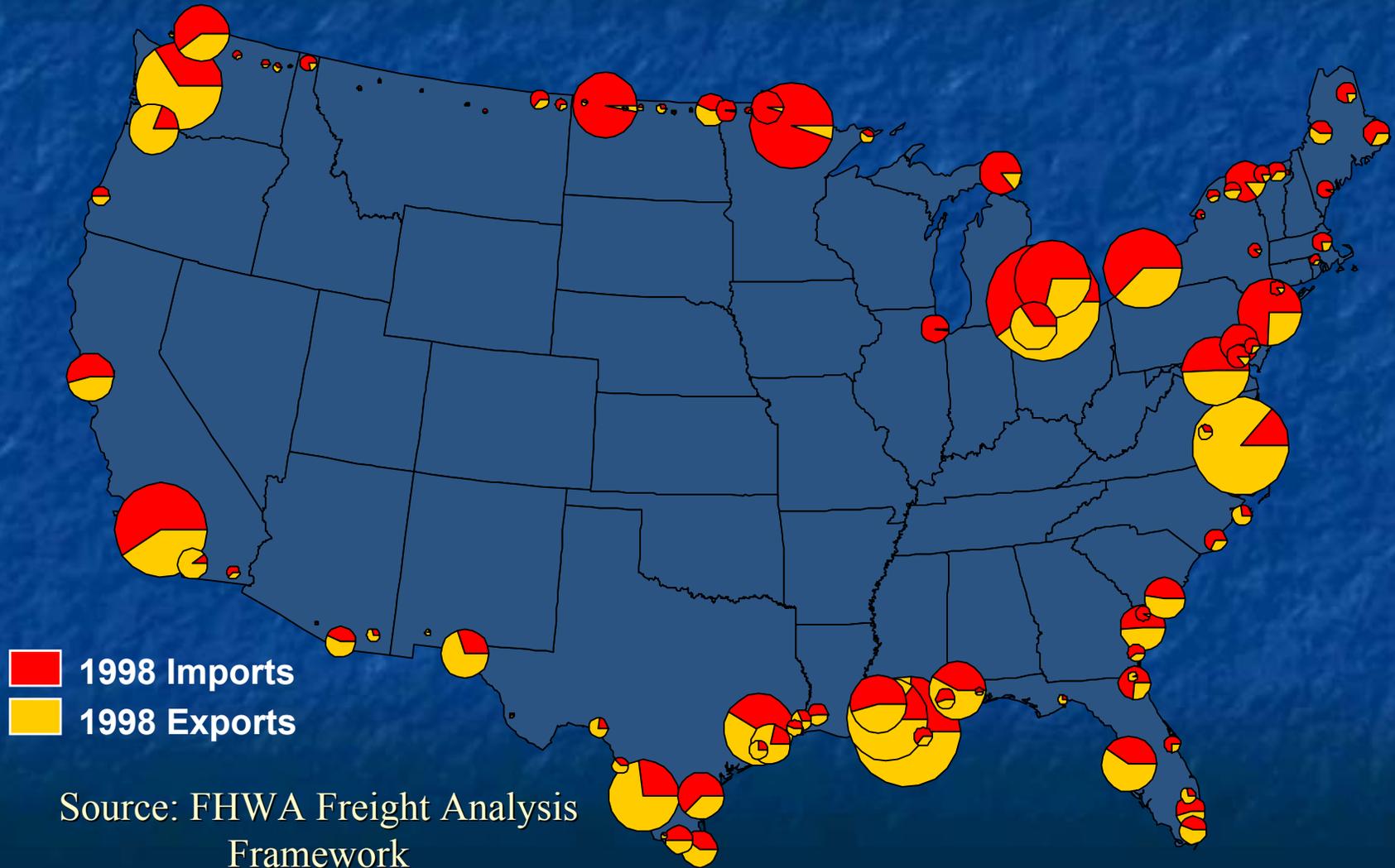
- ❖ Today's traffic congestion costs all of us \$78 billion annually, and wastes 4.5 billion person-hours as well as 6.8 billion gallons of fuel.
- ❖ The nation's transportation system facilitates the flow of cargoes valued at more than \$9 trillion. U.S. DOT estimates that, by 2020, those flows will grow to almost \$30 trillion.

**Increasing congestion/bottlenecks**  
**Over past 20 years, vehicle travel up 78%; road miles increased 1%**



# International Freight Gateways

1998 Import/Export Tonnage May Double by 2020





US Department of Transportation  
 Federal Highway Administration  
 Office of Freight and Operations  
 Operation Core Business Unit

**Freight Analysis Framework  
 FAF Truck Flow  
 (1998)**

**Map Legend**  
 Flow Scale - Volume/day



April 21, 2003 -Battelle

**Red lines indicate Interstate Sections. Blue lines indicate all other roads.**

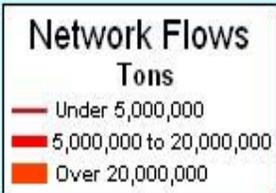
CANADA



U.S. Department of Transportation  
Federal Railroad Administration  
Office of Policy

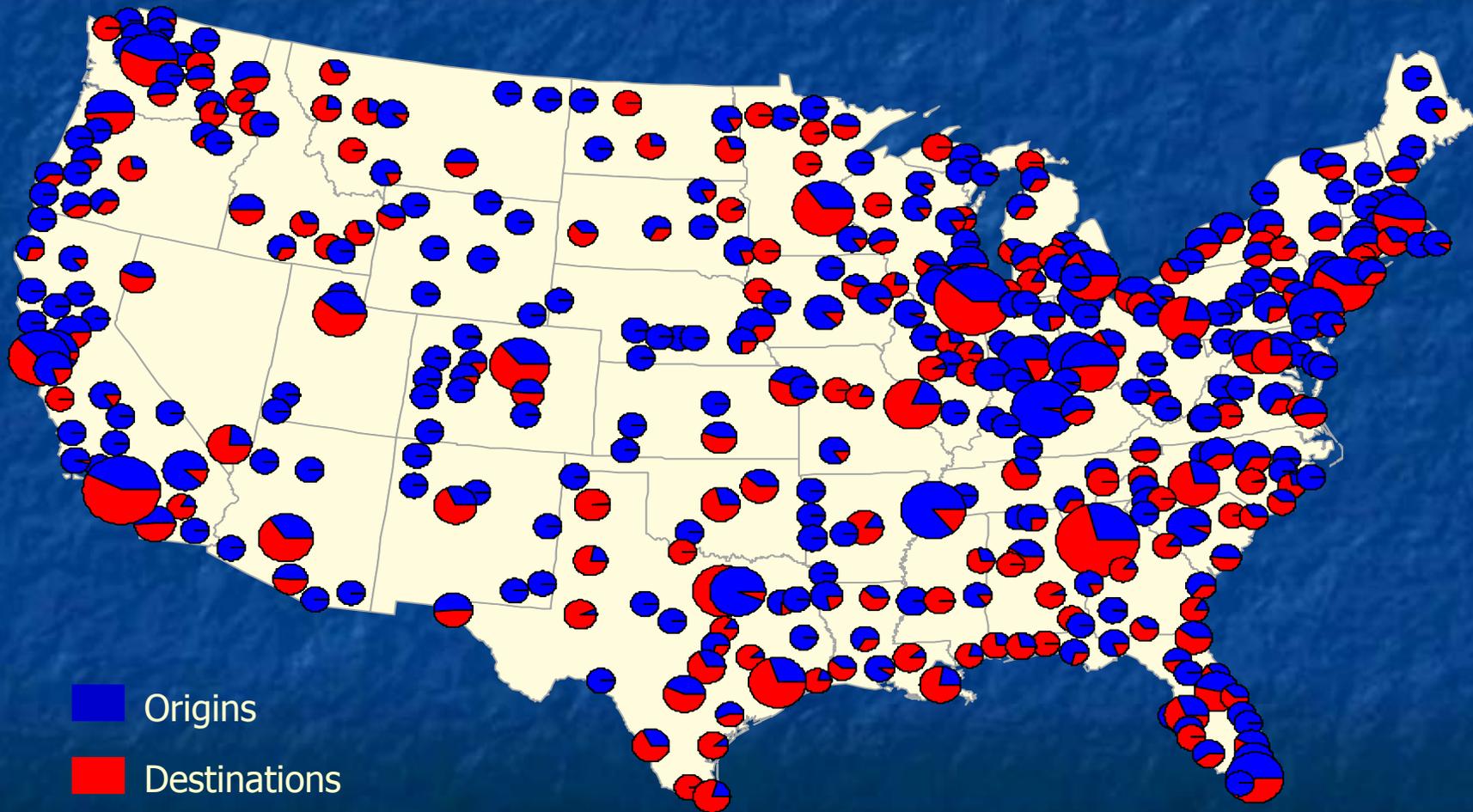
MEXICO

**US**  
Total Rail Flows  
(1999)



# Air-Freight Origins and Destinations

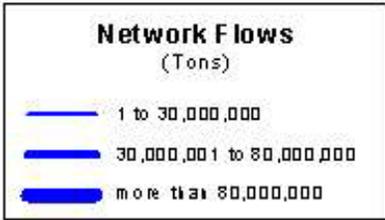
All commodities, domestic airport-to-airport traffic,  
in tons





### Total Combined Water Flows

(1998)



U.S. Department of Transportation  
 Federal Highway Administration  
 Office of Freight Management and Operations  
 Operations Core Business Unit

# Mississippi's Freight Profile

MISSISSIPPI	Tons (millions)			Value (billions \$)		
	1998	2010	2020	1998	2010	2020
<b>State Total</b>	262	376	459	168	325	509
<b>By Mode</b>						
Air	<1	<1	<1	2	5	9
Highway	173	257	321	148	289	454
Other <sup>a</sup>	25	34	38	3	5	7
Rail	31	43	53	9	17	26
Water	33	42	48	5	9	13
<b>By Destination/Market</b>						
Domestic	229	328	401	157	303	472
International	33	48	58	11	22	37

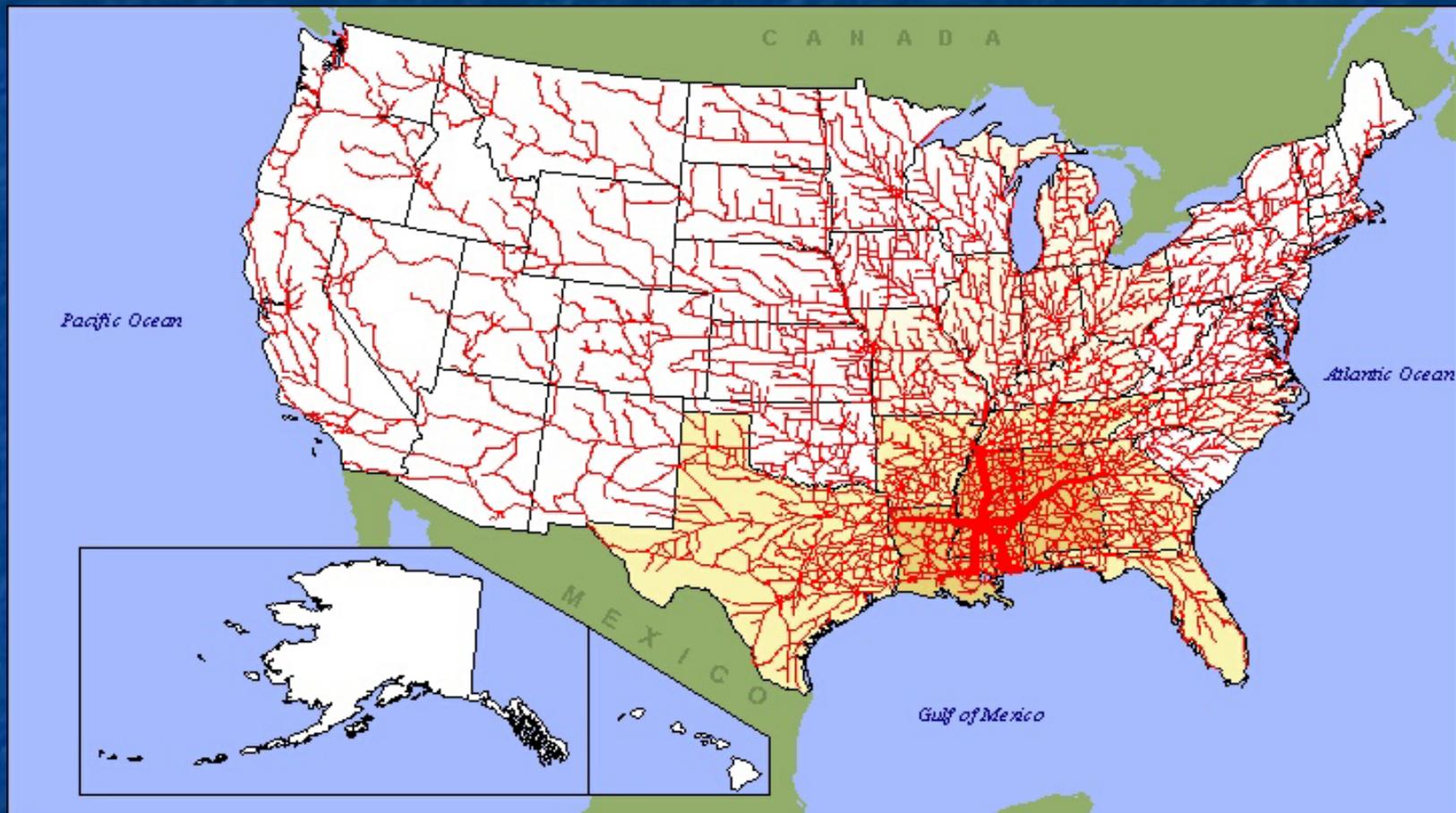
Note: Modal numbers may not add to totals due to rounding.

<sup>a</sup> The "Other" category includes international shipments that moved via pipeline or by an unspecified mode.

# Mississippi's Freight Profile

Commodity	Tons (millions)		Commodity	Value (billions \$)	
	1998	2020		1998	2020
Lumber/Wood Products	46	85	Secondary Traffic	35	144
Secondary Traffic	34	93	Chemicals/Allied Products	22	53
Crude Petroleum/Natural Gas	24	35	Lumber/Wood Products	17	55
Nonmetallic Minerals	23	24	Food/Kindred Products	16	55
Farm Products	23	28	Transportation Equipment	11	25

# Mississippi Truck Flows



U.S. Department of Transportation  
Federal Highway Administration  
Office of Freight Management and Operations  
Operations Core Business Unit

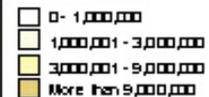
## MISSISSIPPI

Total Domestic Truck Flows  
(1998)

### Network Flows (Tons)



### State to State Flows (Tons)



# Mississippi Truck Flows

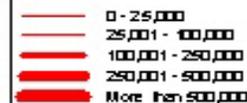


U.S. Department of Transportation  
Federal Highway Administration  
Office of Freight Management and Operations  
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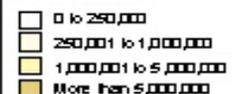
## MISSISSIPPI

Total International Truck Flows  
(1998)

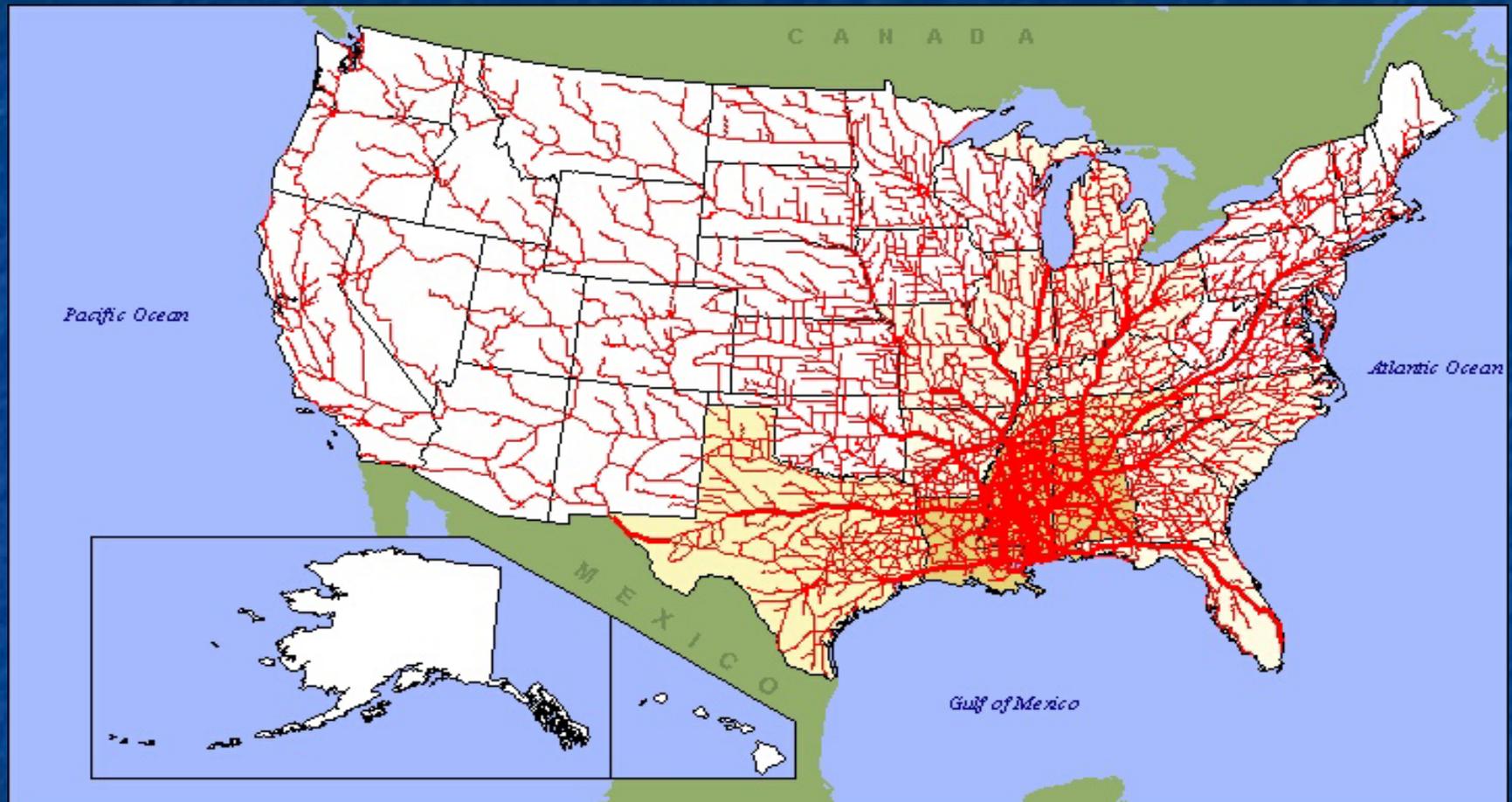
### Network Flows (Tons)



### State to State Flows (Tons)



# Mississippi Truck Flows



U.S. Department of Transportation  
 Federal Highway Administration  
 Office of Freight Management and Operations  
 Operations Core Business Unit

## MISSISSIPPI Total Combined Truck Flows (1998)



# Mississippi Rail Flows



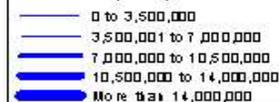
# Mississippi Maritime Flows



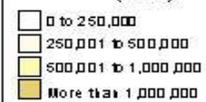
U.S. Department of Transportation  
Federal Highway Administration  
Office of Freight Management and Operations  
Operations Core Business Unit

## MISSISSIPPI Total Domestic Water Flows (1998)

### Network Flows (Tons)



### State to State Flows (Tons)



# Mississippi Maritime Truck Flows

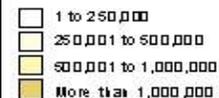


U.S. Department of Transportation  
Federal Highway Administration  
Office of Freight Management and Operations  
Operations Core Business Unit

## MISSISSIPPI PORTS

Inland Movement of Maritime  
Cargo by Truck  
(1998)

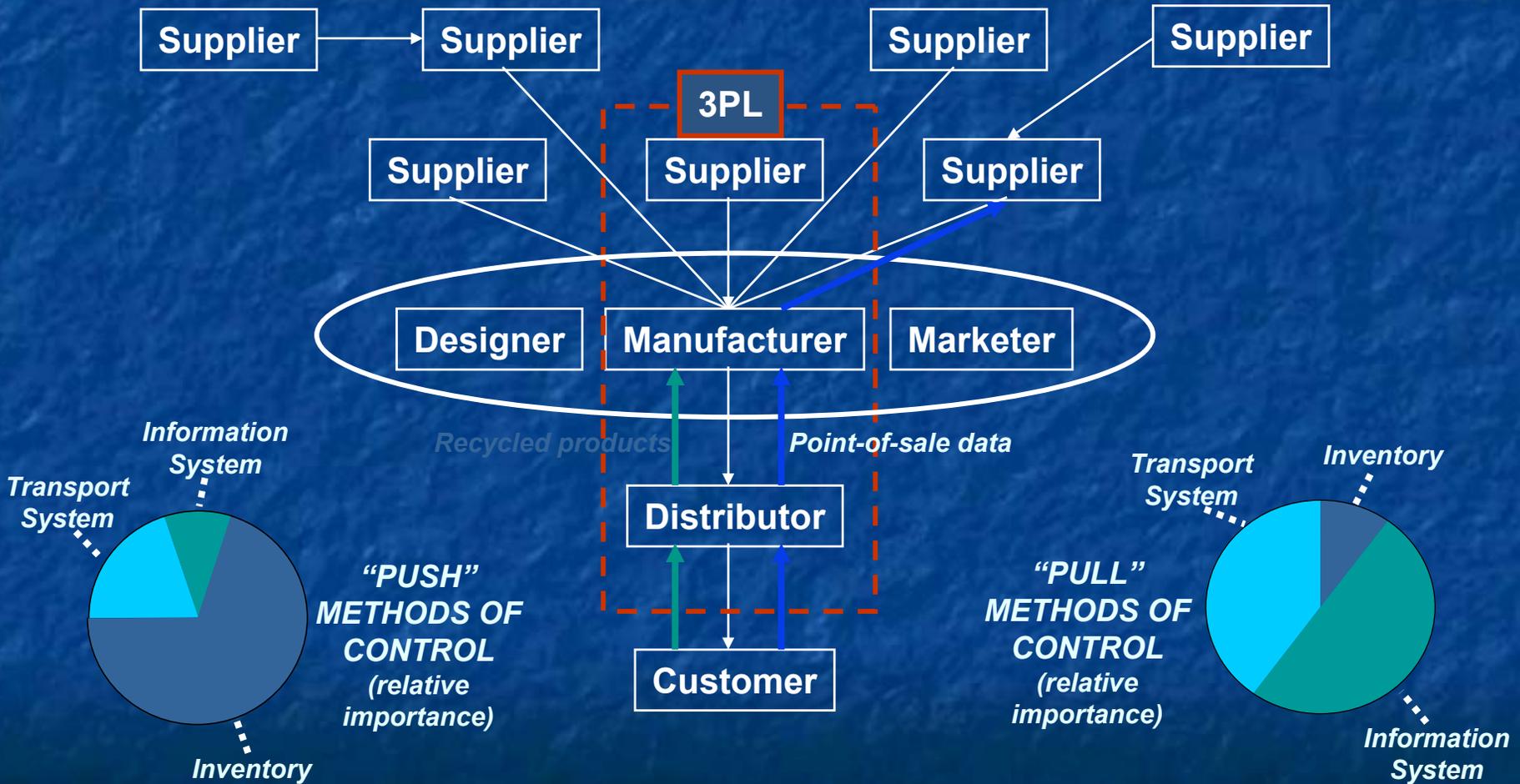
### Port to State Flows (Tons)



### Network Flows (Tons)



# From Push to Pull Logistics Systems



# Freight Growth Rates -Trend

## Tonnage Forecasts –

### ❖ US Domestic:

All Freight 1998-2020: 2.4% (Cumulative: 67%)

### ❖ US International:

1998-2020: 2.8% (Cumulative: 85%)

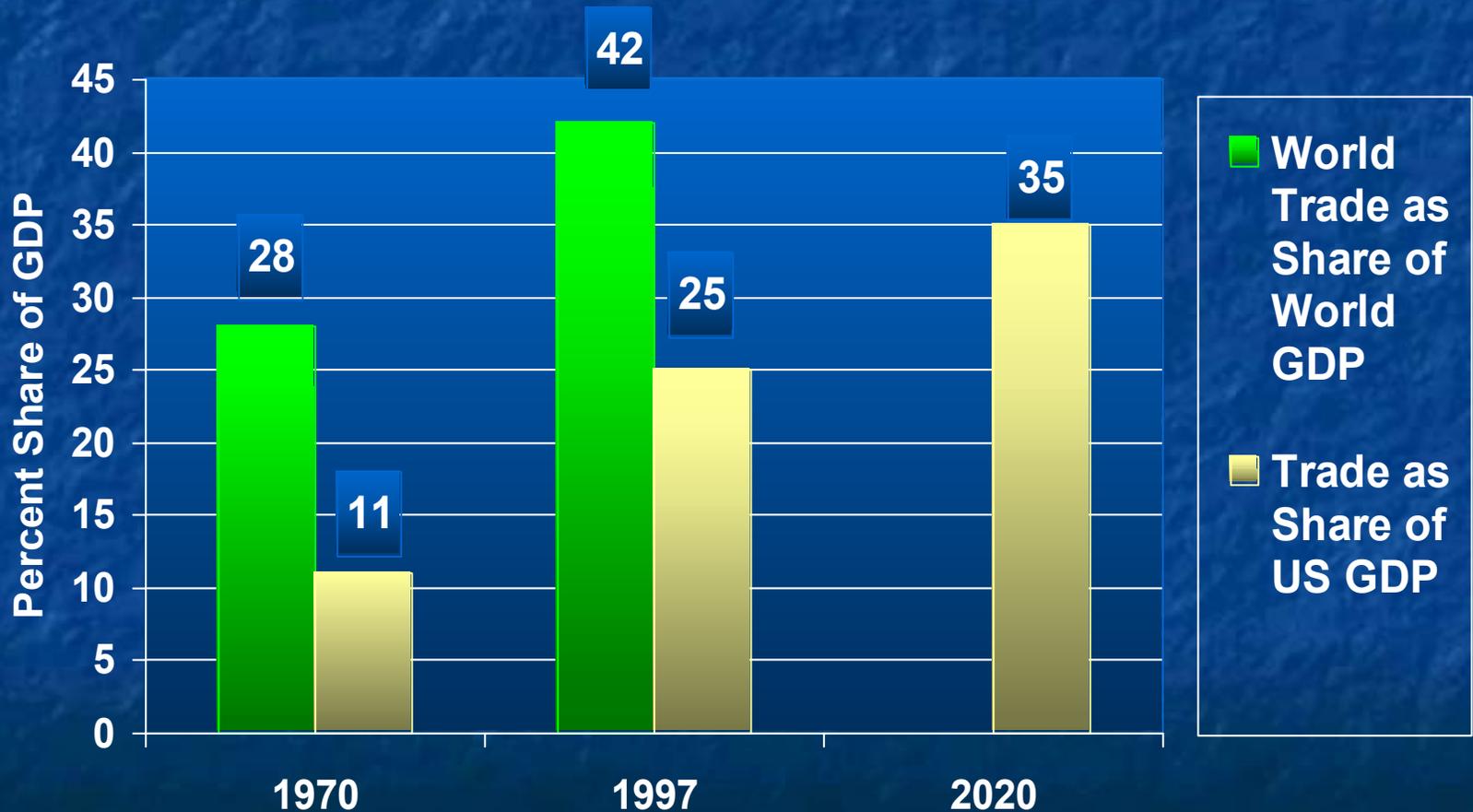
Subset - US/Canada 1998-2020: 3.2% (Cumulative: 99%)

Subset - US/Mexico 1998-2020: 5.4% (Cumulative: 217%)

Subset - US/ROW 1998-2020: 2.6% (Cumulative: 77%)

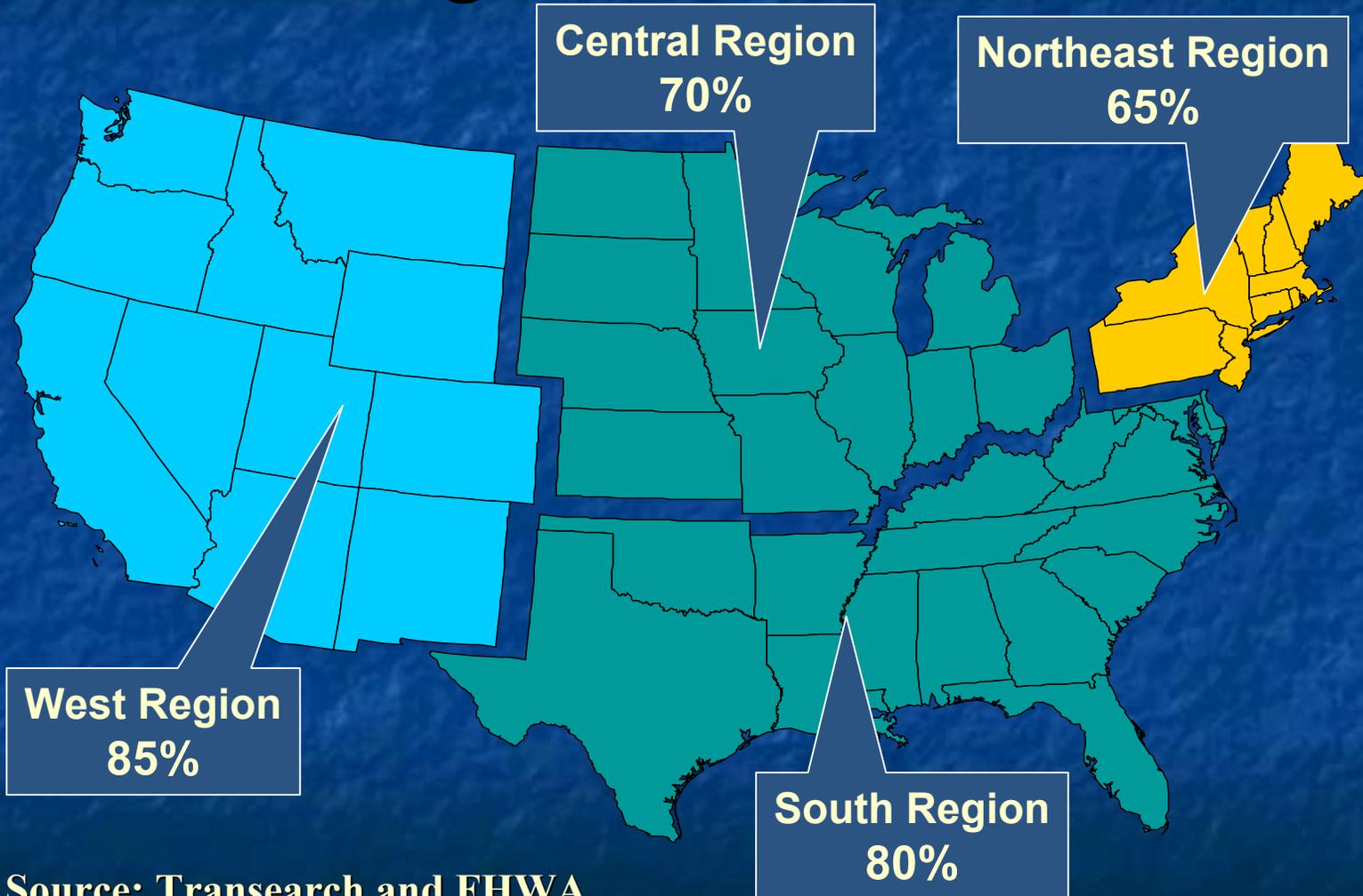
# World and U.S. Merchandise Trade

Trade is growing and now accounts for 25% of U.S. GDP, up from 11% in 1970...expected to increase to 35% by 2020



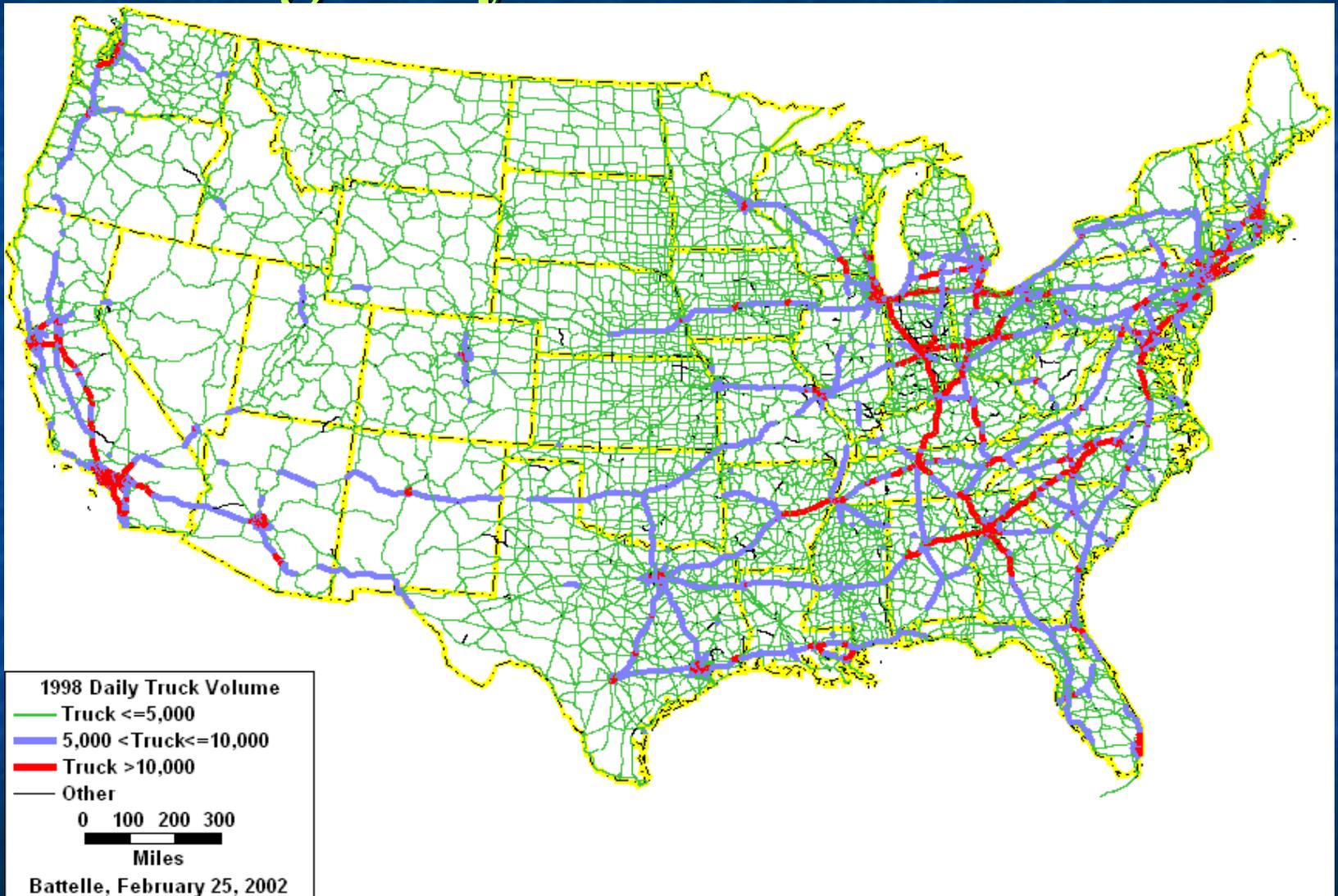
Source: World Bank, World Development Indicators 1999

# Freight Tonnage Forecast by Region, 2000-2020

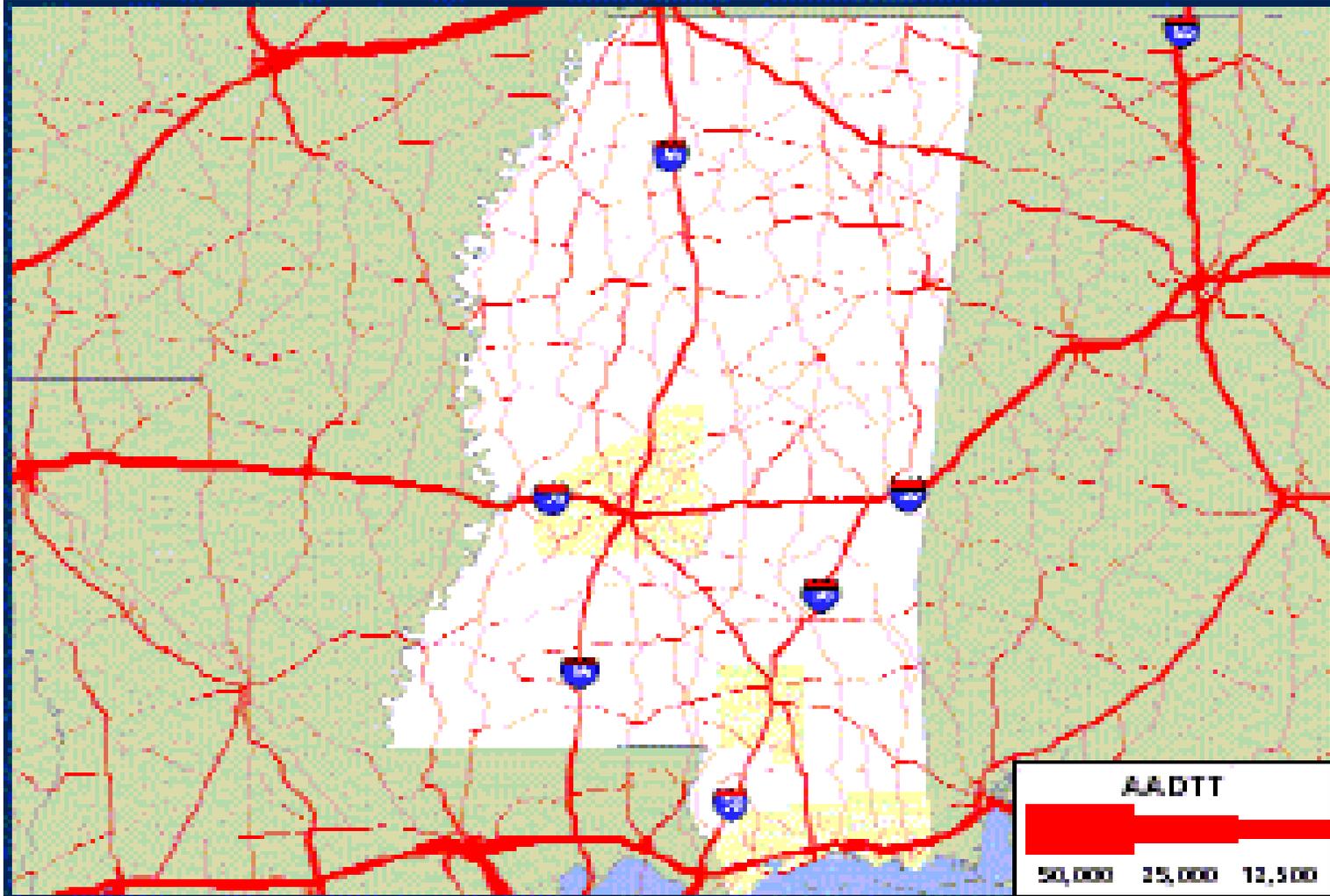


Source: Transearch and FHWA  
Freight Analysis Framework  
Project

# Truck Volumes on National Highway Network – 1998

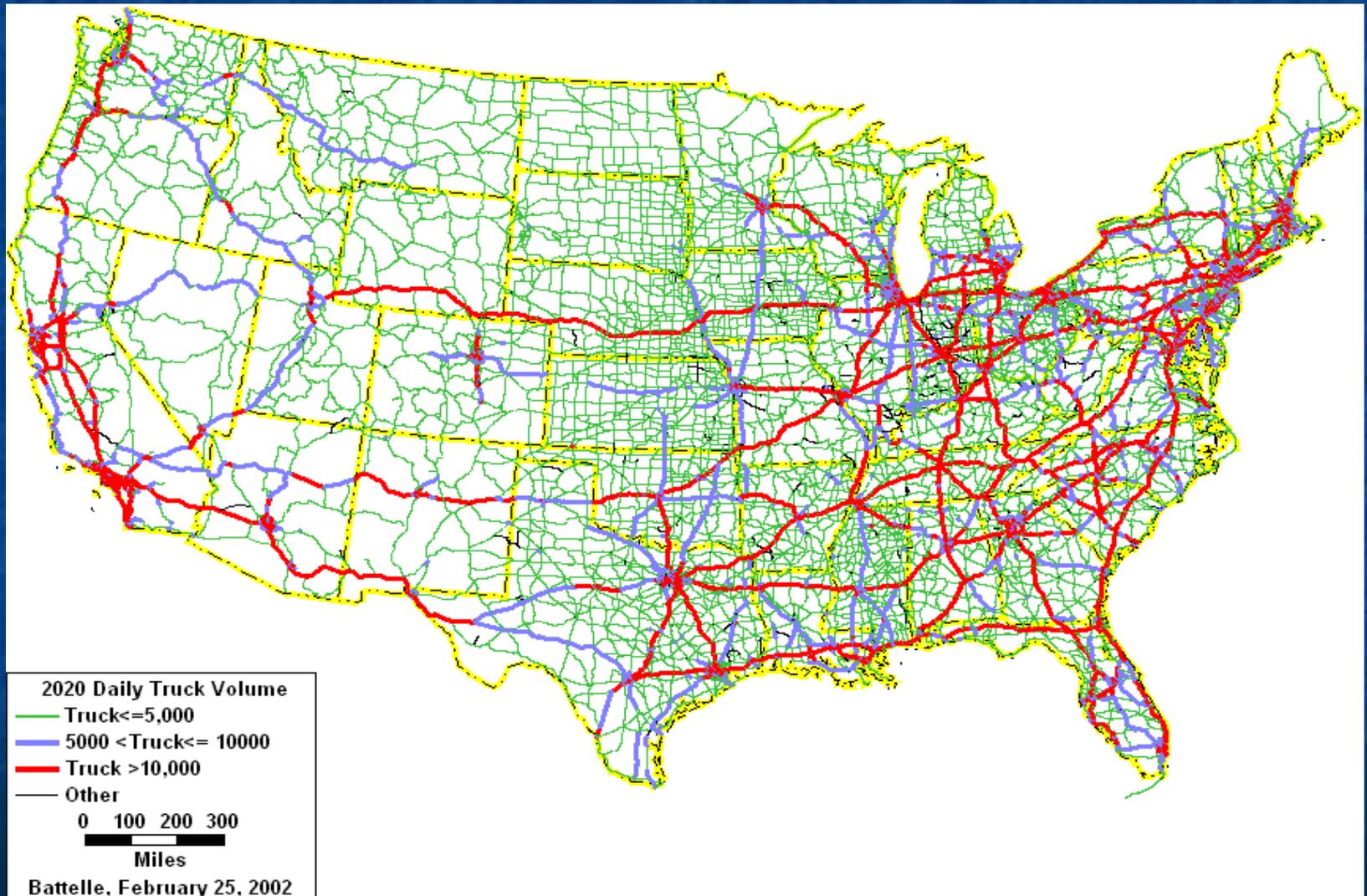


# Mississippi Daily Truck Flows – 1998

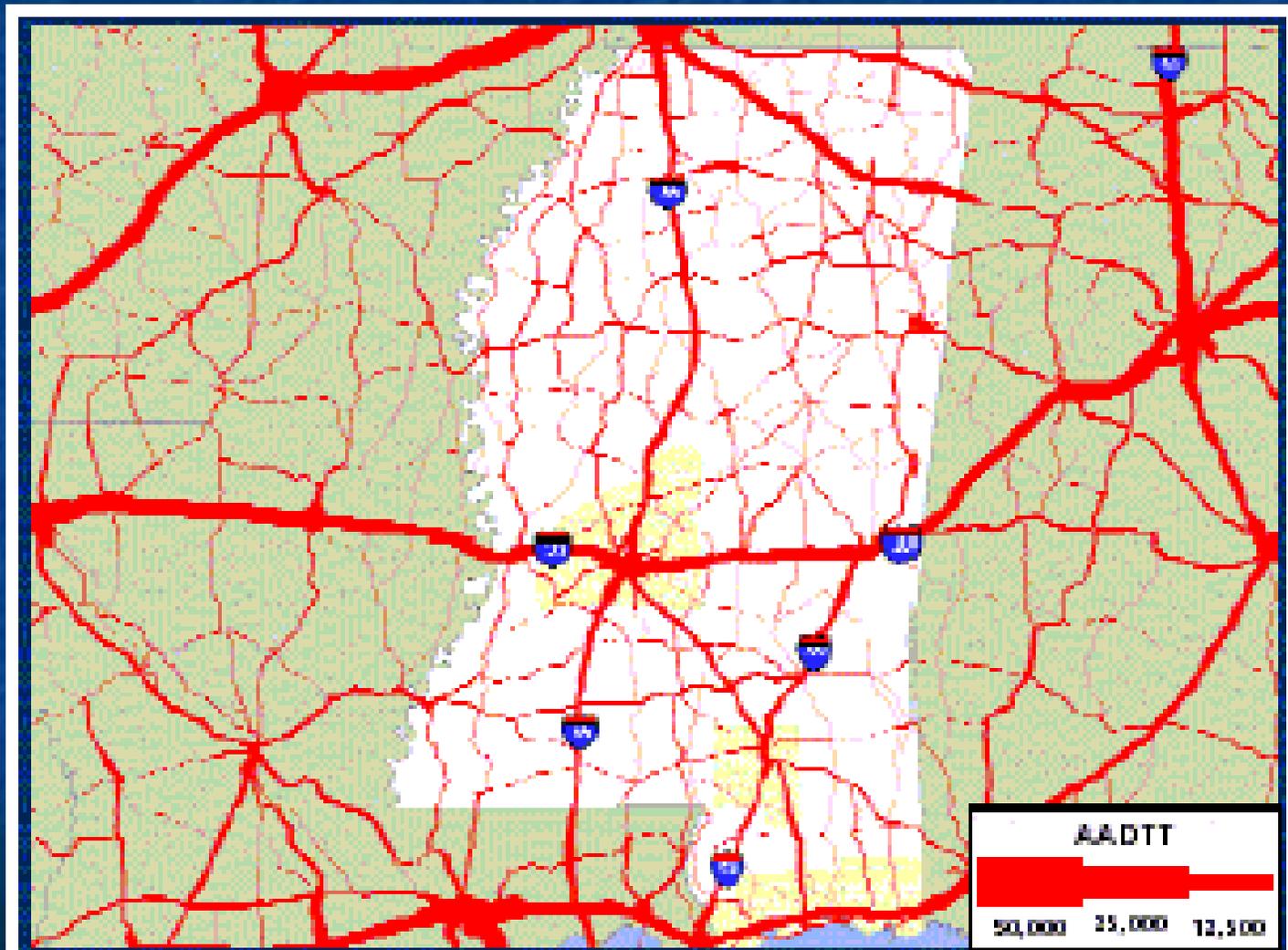


Federal Highway Administration

# Truck Volumes on Highway Network – 2020

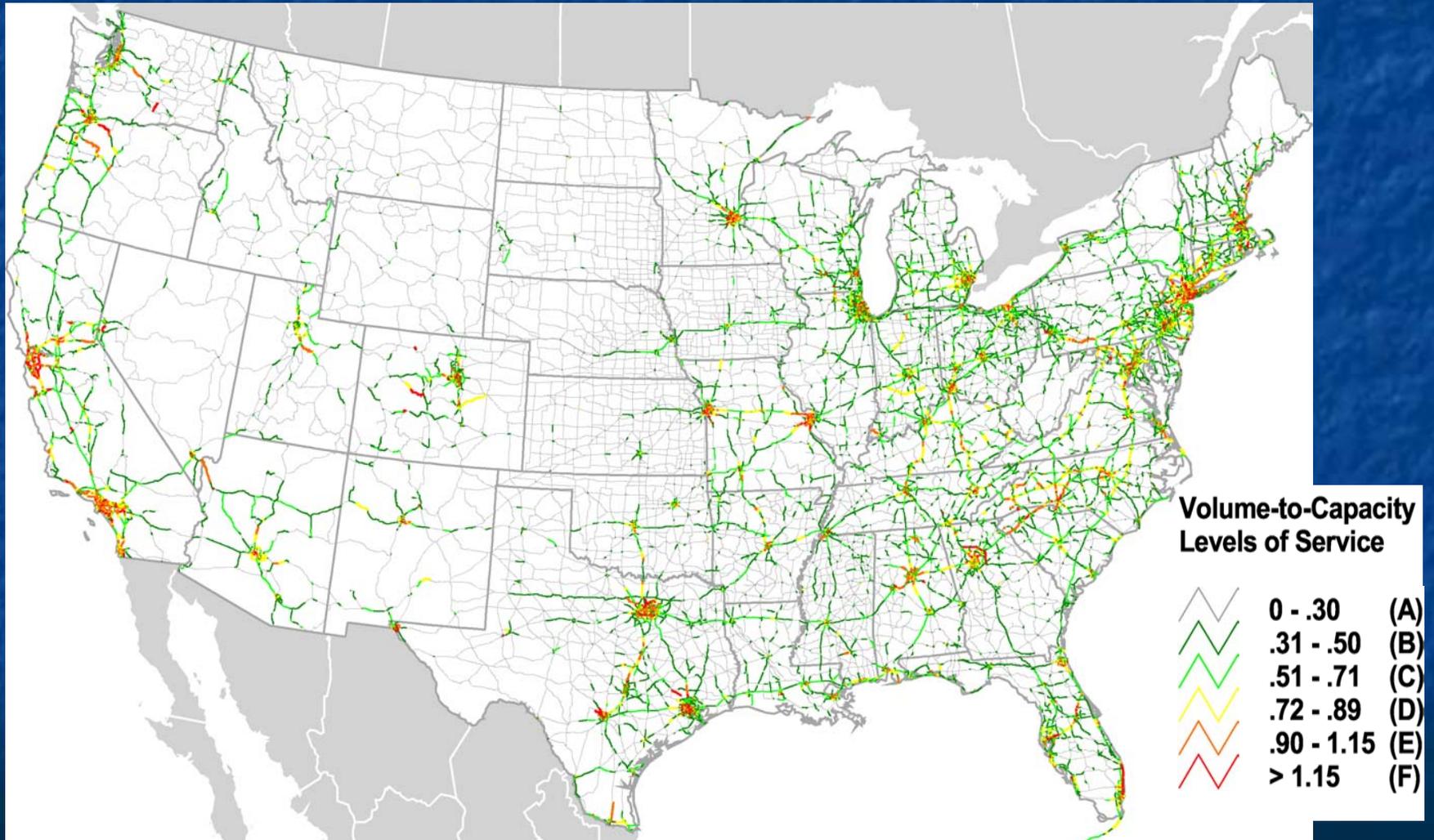


# Mississippi Daily Truck Flows 2020



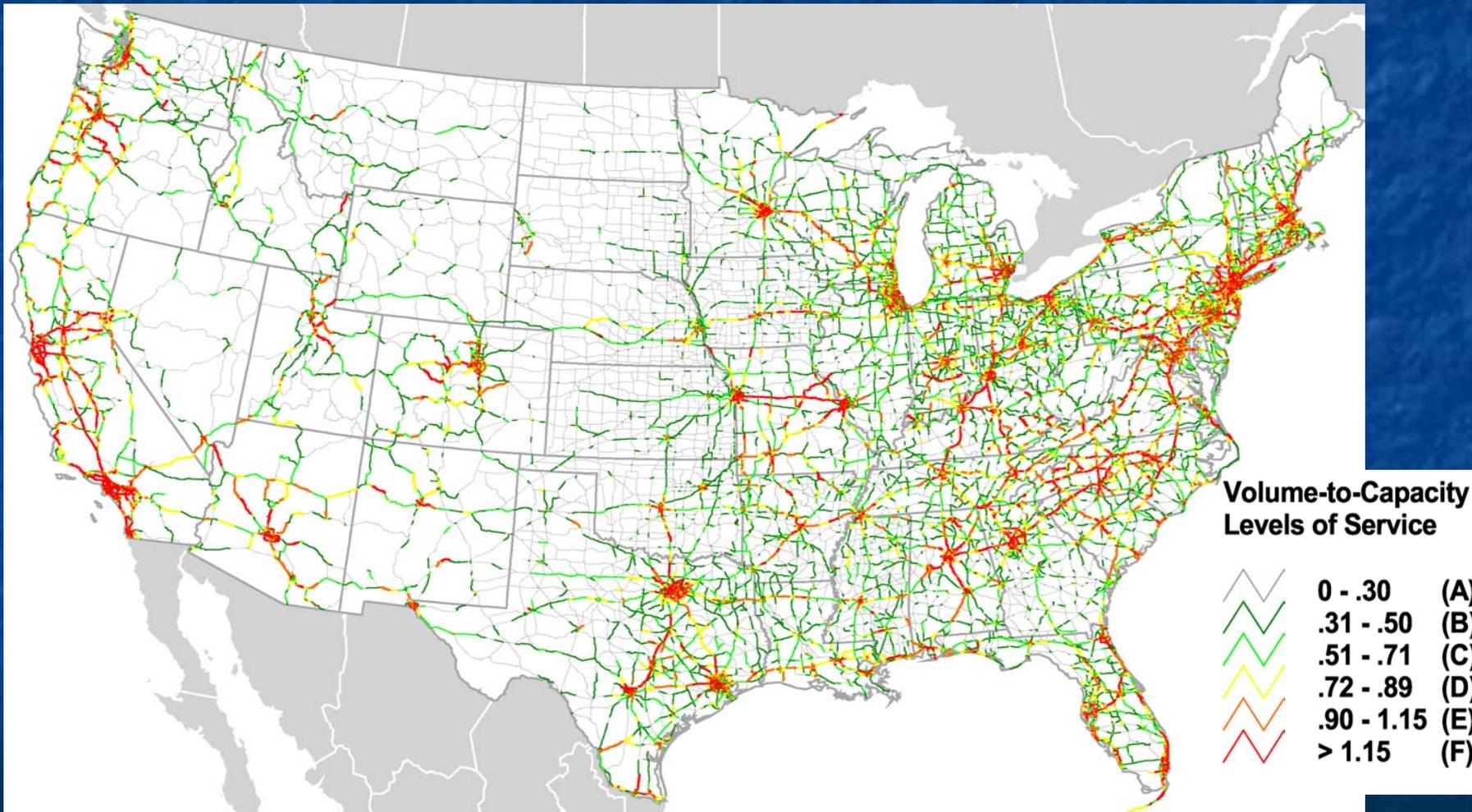
Federal Highway Administration

# Congested Highways 2000



Source: U.S. DOT Freight Analysis Framework Project

# Potential Congested Highways 2020



Source: U.S. DOT Freight Analysis Framework Project

# Community and Land Use Impacts Increasing Cost and Complexity of Expanding Marine, Rail, Truck, and Air Terminals



# Intermodal Challenges



NHS Connectors

Poor physical condition

Poor geometrics

“Orphan status”

Inadequate coordination  
of investment strategies

# Intermodal Challenges

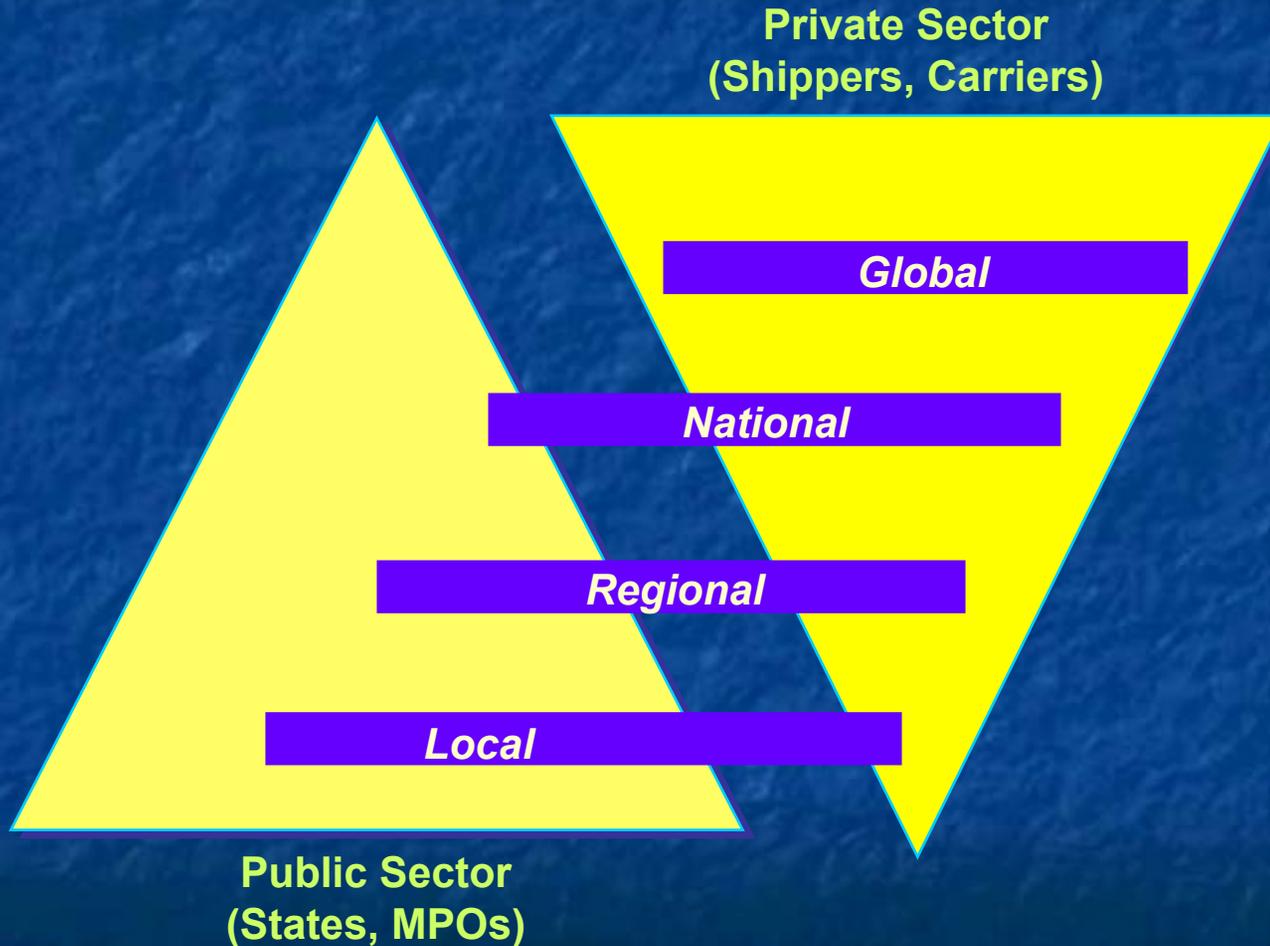


## Freight Outreach Findings

Freight is not adequately addressed at state and local level

Difficult to bring public and private sectors together

# Dysfunctional Public and Private Relationships...the challenge of 21<sup>st</sup> Century needs working with 20<sup>th</sup> Century institutions



# What Is HIP's Mission?

- ❖ The Heartland Intermodal Partnership (HIP) is dedicated to promoting safe, efficient, environmentally sustainable intermodal freight transportation to mitigate impacts from projected sharp increases in volumes.
- ❖ Its mission – Support the competitiveness of HIP-region business, industry and labor through improved intermodal transportation.

# What Are HIP's Objectives?

HIP will:

- ❖ Focus on the challenges created by the doubling of freight volumes.
- ❖ Welcome infrastructure owners and investors, both public and private, who demand systemic solutions.

# What Are HIP's Objectives?

- ❖ Commit to heightening the awareness of regional public and private-sector entities about the coming crisis in freight capacity and the Heartland's full range of resources for coping with these unprecedented demands on the region's transportation systems.

# What Are HIP's Objectives?

- ❖ Promote concepts and solutions that will truly benefit tomorrow's shippers, carriers & system owners.
- ❖ Think intermodally (highway, rail, and maritime) so the nation has a safe, efficient and truly integrated transportation system.

# What Are HIP's Objectives?

- ❖ Act as a regional forum where senior public and private-sector decision makers can explore the range of operating, policy and technology options for mitigating these anticipated adverse impacts on the security, economy, and ecology of the United States.

# What Are HIP's Objectives?

- ❖ Feature water intermodalism as an important strategy to minimize the effects of the coming congestion.

**QUESTIONS?**